



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY

PO Box 47775 • Olympia, Washington 98504-7775 • (360) 407-6300

March 9, 2010

Mr. Paul DeTray  
3601 18<sup>th</sup> Ave SE  
Olympia, WA 98501-2760

**Re: No Further Action at the following Site:**

- **Site Name:** Former Chevron Service Station DeTray
- **Site Address:** 3731 Pacific Avenue SE, Olympia WA 98501
- **Facility/Site No.:** 87122581
- **VCP Project No.:** SW0906

Dear Mr. DeTray:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your independent cleanup of the Former Chevron Service Station DeTray (Site). This letter provides our opinion. We are providing this opinion under the authority of the Model Toxics Control Act (MTCA), Chapter 70.105D RCW.

**Issue Presented and Opinion**

Is further remedial action necessary to clean up contamination at the Site?

**NO. Ecology has determined that no further remedial action is necessary to clean up contamination at the Site.**

This opinion is based on an analysis of whether the remedial action meets the substantive requirements of MTCA, Chapter 70.105D RCW, and its implementing regulations, Chapter 173-340 WAC (collectively "substantive requirements of MTCA"). The analysis is provided below.

**Description of the Site**

This opinion applies only to the Site described below. The Site is defined by the nature and extent of contamination associated with the following releases:

- Petroleum Hydrocarbons and Lead in Soil and Ground Water.

**Enclosure A** includes a detailed description and diagram of the Site, as currently known to Ecology.



Please note a parcel of real property can be affected by multiple sites. At this time, we have no information that the parcel(s) associated with this Site are affected by other sites.

### **Basis for the Opinion**

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This opinion is based on the information contained in the following documents:

1. Quarterly Groundwater Events: November 2008 – December 2009 & Request for NFA Determination, Former Chevron Service Station, Ecology VCP Number SW0906, 3731 Pacific Ave SE, Olympia WA, dated December 15, 2009 by Associated Environmental Group, LLC.

Those documents are kept in the Central Files of the Southwest Regional Office of Ecology (SWRO) for review by appointment only. You can make an appointment by calling the SWRO resource contact at 360-407-6365.

This opinion is void if any of the information contained in those documents is materially false or misleading.

### **Analysis of the Cleanup**

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Ecology has concluded that **no further remedial action** is necessary to clean up contamination at the Site. That conclusion is based on the following analysis:

1. **Characterization of the Site.**

Ecology has determined your characterization of the Site is sufficient to establish cleanup standards and select a cleanup action. The Site is described below and in **Enclosure A**.

The Site is a former gasoline service station. Several investigations have been conducted at the site. One investigation identified lead in the eastern portion of the Site in one soil sample (B-6@8') at 1,000 milligrams/kilogram (mg/kg). Subsequent investigations surrounding this location did not find total lead above the MTCA Method A cleanup level in either the soil or groundwater. No petroleum hydrocarbons were detected above the MTCA Method A cleanup levels in the confirmational soil samples collected following the underground storage tank (UST) removal. Carcinogenic polycyclic aromatic hydrocarbons (cPAHs) were detected in one sample from the dispenser island; however, the total cPAH calculation did not exceed the MTCA Method A cleanup level. One composite soil sample (from a soil stockpile) exceeded the MTCA Method A cleanup levels for ethylbenzene (11 mg/kg) and total xylenes (70 mg/kg), and one composite soil

sample collected from another soil stockpile exceeded the MTCA Method A cleanup level for cadmium at 2.3 mg/kg. The groundwater sample collected from the tank pit excavation immediately following the tank removal contained 51 micrograms/liter (ug/L) benzene and 31 ug/L total lead, both of which exceeded the MTCA Method A cleanup levels. Subsequent groundwater sampling events in the five monitoring wells on the Site identified only total lead in one well (MW-2) above the MTCA Method A cleanup level. This well is located within the former UST nest central to the property. This well was sampled in November 2008 for total and dissolved lead. The results for the total lead exceeded the MTCA Method A cleanup level. The dissolved lead sample did not exceed the MTCA Method A cleanup level. Three additional sampling events for total lead in groundwater were conducted with the last sampling event occurring in December 2009. None of the groundwater samples collected during these events exceeded the MTCA Method A cleanup level for total lead. Based on the analytical data presented, it appears that the total lead exceedances noted in the past in well MW-2 are a result of suspended sediment.

## **2. Establishment of cleanup standards.**

### **a. Cleanup levels.**

The Site is a former gasoline service station in a generally commercial neighborhood. Site soils and groundwater were evaluated against the MTCA Method A Cleanup Levels for unrestricted land use.

### **b. Points of Compliance.**

Standard points of compliance have been established for the Site. The point of compliance for protection of groundwater will be established in the soils throughout the Site. For soil cleanup levels based on human exposure via direct contact or other exposure pathways where contact with the soil is required to complete the pathway, the point of compliance shall be established in the soils throughout the Site from the ground surface to 15 feet below ground surface (bgs). In addition, the point of compliance for the groundwater is established throughout the Site from the uppermost level of the saturated zone extending vertically to the lowest most depth that could potentially be affected by the Site.

## **3. Selection of cleanup action.**

Ecology has determined the cleanup action you selected for the Site meets the substantive requirements of MTCA.

The cleanup action selected for the Site was removal of all USTs (both early and later generations), associated plumbing, the building structures, and the excavation and off-Site disposal of contaminated soil, the collection of four quarters of groundwater samples, and the collection of additional total lead in groundwater samples to demonstrate that there are no issues with respect to total lead in groundwater.

**4. Cleanup.**

Ecology has determined the cleanup you performed meets the cleanup standards established for the Site.

The combination of UST and associated plumbing removal, soil excavation, building removal, and collection of groundwater samples has been effective in addressing the impacts noted at the Site.

**Listing of the Site**

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Based on this opinion, Ecology will remove the Site from our Confirmed and Suspected Contaminated Sites List and Leaking Underground Storage Tank List.

**Limitations of the Opinion**

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**1. Opinion does not settle liability with the state.**

Liable persons are strictly liable, jointly and severally, for all remedial action costs and for all natural resource damages resulting from the release or releases of hazardous substances at the Site. This opinion **does not**:

- Resolve or alter a person's liability to the state.
- Protect liable persons from contribution claims by third parties.

To settle liability with the state and obtain protection from contribution claims, a person must enter into a consent decree with Ecology under RCW 70.105D.040(4).

**2. Opinion does not constitute a determination of substantial equivalence.**

To recover remedial action costs from other liable persons under MTCA, one must demonstrate that the action is the substantial equivalent of an Ecology-conducted or

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Ecology-supervised action. This opinion does not determine whether the action you performed is substantially equivalent. Courts make that determination. *See* RCW 70.105D.080 and WAC 173-340-545.

**3. State is immune from liability.**

The state, Ecology, and its officers and employees are immune from all liability, and no cause of action of any nature may arise from any act or omission in providing this opinion. *See* RCW 70.105D.030(1)(i).

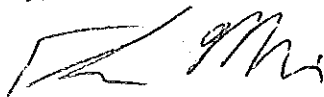
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**Termination of Agreement**

Thank you for cleaning up the Site under the Voluntary Cleanup Program (VCP). This opinion terminates the VCP Agreement governing this project (#SW0906)

For more information about the VCP and the cleanup process, please visit our web site: [www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm](http://www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm). If you have any questions about this opinion or the termination of the Agreement, please contact me by phone at 360-407-7263 or e-mail at [tmid461@ecy.wa.gov](mailto:tmid461@ecy.wa.gov).

Sincerely,



Thomas Middleton L.H.G.  
SWRO Toxics Cleanup Program

TMM/ksc:Former South Sound Chevron Service Station Detrays Site NFA

Enclosures:      A – Description of the Site  
                      Figure 1 – Site Plan  
                      Table 1 – Summary of Analytical Results - Groundwater

By certified mail: (7009 1410 0002 4421 6618)

cc:      Yen-Vy T. Van, Associated Environmental Group LLC  
         Gerald Tousley - Thurston Co Health Dept  
         Carol Johnston – Ecology  
         Dolores Mitchell – Ecology – VCP Financial Manager (without enclosures)  
         Scott Rose - Ecology

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## **Enclosure A**

### **Description and Diagrams of the Site**

## Site Summary

The former South Sound Chevron Site #9-4867 is located at 3731 Pacific Avenue SE in Olympia, Thurston County, Washington. The site has been used as a service station since 1970. Maverick's gas station occupied the site until Chevron took over the site in 1979. Chevron operated the site until 1987 after which it was sold to a third party. The site is paved and generally level. Properties in the vicinity of the site are primarily commercial. The site is bordered to the north by Papa Murphy's Pizza and Premier Properties One; to the east by a manufactured home business and parking lot; to the south by display homes associated with the manufactured home business; and to the west by an alley and J&I Power Equipment.

The site is located within the Puget Lowland, a basin between the Cascade Ranges and Olympic Mountains. Regional geology consists of alternating glacial and interglacial deposits (Vashon Till) overlying bedrock. Bedrock beneath the glacial deposits consists of the Crescent Formation made up of the Lower Tertiary sandstone, shale, and coal. Local topography consists of hills and lakes that remain from glacial advances and retreats. The glacial deposits consist of silts and clays from lake deposition, sand and gravel from streams (glacial outwash), and till. Groundwater in this region occurs within both the glacial till and other fine interglacial sediments together with the coarser grained glacial outwash deposits of sand and gravel. Groundwater occurs beneath the property at approximately 12 to 18 feet below ground surface (bgs) in the sandy gravel with silt. The groundwater beneath the site flows to the west-northwest based on depth to groundwater measurements.

In 1994, Pacific Environmental Group, Inc. (Pacific) oversaw the removal of four steel gasoline underground storage tanks (USTs), pump islands, and petroleum-contaminated soils (PCS) from the site. They also oversaw the installation of three new double-walled fiberglass gasoline USTs. Confirmation soil samples were collected from the UST excavation, the pump island excavation, fuel line trenches, and soil stockpiles and analyzed for gasoline-range hydrocarbons (TPH-G), benzene, toluene, ethylbenzene, and xylenes (BTEX), and total lead. None of the samples collected exceeded the Model Toxics Control Act (MTCA) Method A cleanup levels.

In August 2004, SECOR International, Inc. (SECOR) conducted a Baseline Site Assessment for a property transaction. Soil and groundwater samples were collected from five exploratory borings located near the USTs and fuel dispenser islands. Samples were tested for TPH-G, BTEX, and oxygenates. No soil or groundwater samples contained levels of these constituents above the MTCA Method A cleanup levels.

In May 2006, Cambria Environmental Technology, Inc. (Cambria) performed a baseline assessment at the site. Seven soil borings were advanced during the investigation at depths ranging from 9 to 20 feet bgs. Groundwater was encountered between 12 and 18 feet bgs. Soil and groundwater samples were submitted for analysis of TPH-G, BTEX, methyl tert-butyl ether (MTBE), 1,2-dibromoethane (EDB), 1,2-dichloroethane (EDC), and lead. Lead (as total lead) was found in one soil sample (B-6@8') at 1,000 milligrams/kilogram (mg/kg), which is above the MTCA Method A cleanup level of 250 mg/kg. The soil sample collected below this sample (B-6@12'), at 210 mg/kg, did not exceed the MTCA Method A cleanup level. No other contaminants were detected above the MTCA Method A cleanup levels in soil. Groundwater samples collected from B-6GW@12' and B-8GW@18' both contained lead (as total lead) above the MTCA Method A cleanup level [15 micrograms/liter (ug/L)] at concentrations of 54 ug/L and 31 ug/L, respectively.

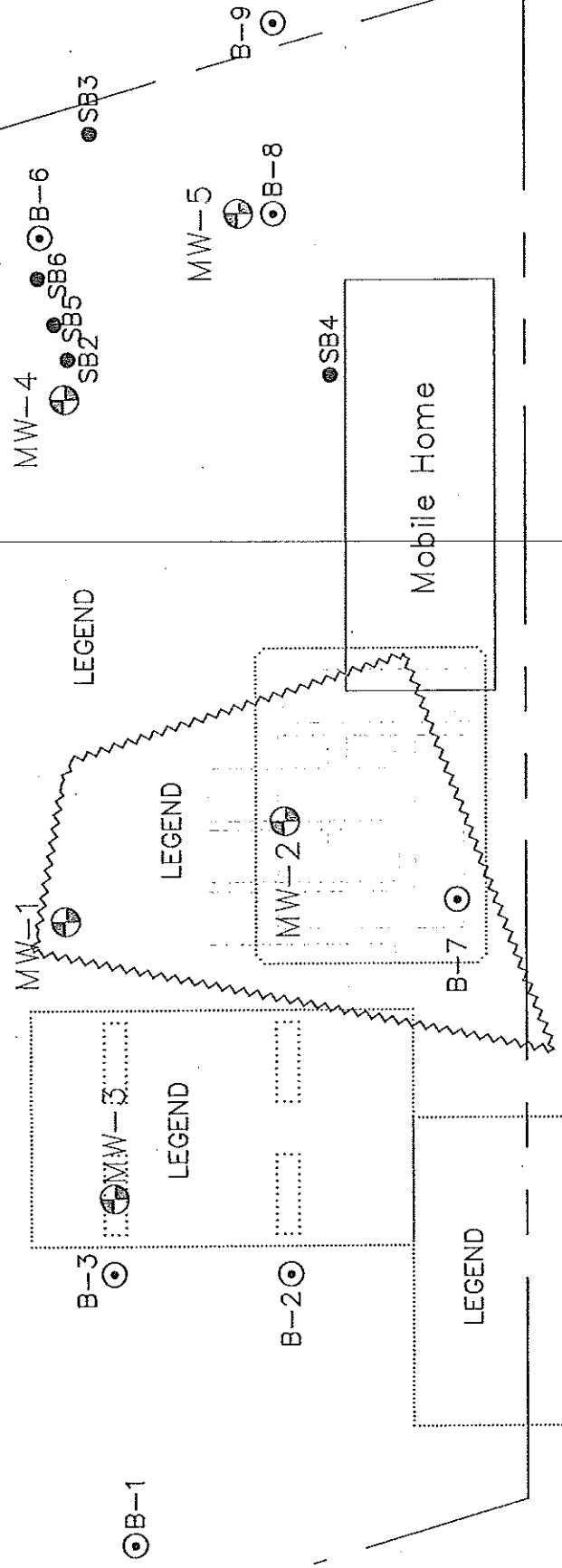
In April 2007, Conestoga-Rovers & Associates (CRA) documented the removal of three 15,000-gallon gasoline USTs, associated dispenser islands, and product piping. Confirmation soil samples were collected from the dispenser islands and the walls of the UST excavation. Soil samples were also

collected from the stockpiles generated during the excavation activities. A groundwater sample was collected from the water that accumulated in the bottom of the UST excavation. All samples were analyzed for volatile organic compounds (VOCs) by EPA Method 8260B; carcinogenic polycyclic aromatic hydrocarbons (cPAHs) by EPA Method 8270SIM; TPH-G by SW-846 8015B modified; diesel and oil range hydrocarbons (TPH-D and TPH-O) by Method NWTPH-Dx, ECY 97-602 Modified with silica gel cleanup; and total lead by EPA method 6010. No petroleum hydrocarbons were detected above the MTCA Method A cleanup levels in the confirmational soil samples collected. cPAHs were detected in one sample from the dispenser island; however, the total cPAH calculation did not exceed the MTCA Method A cleanup level. One composite soil sample (from a soil stockpile) exceeded the MTCA Method A cleanup levels for ethylbenzene (11 mg/kg) and total xylenes (70 mg/kg), and one composite soil sample collected from another soil stockpile exceeded the MTCA Method A cleanup level for cadmium at 2.3 mg/kg. The groundwater sample collected from the tank pit excavation contained 51 ug/L benzene and 31 ug/L total lead, both of which exceeded the MTCA Method A cleanup levels.

Associated Environmental Group, LLC (AEG) conducted two supplemental investigations (August 2007 and October 2007) following the sale of the property to Mr. Paul DeTray. During these investigations, AEG advanced five soil borings (SB-2 through SB-6) and installed a total of five groundwater monitoring wells on the property. Soil and groundwater samples were collected and submitted for analysis of TPH-G, TPH-D, BTEX, MTBE, EDB, EDC, cadmium, and lead. Soil and groundwater analytical results indicated no detectable concentrations of any constituents tested for with the exception of a detection of total lead in groundwater collected from SB-3 (4.7 ug/L). Although groundwater monitoring wells were installed in five locations across the site, no groundwater contour maps were prepared and directions of groundwater flow have not been determined. AEG met with Ecology in early 2008 to provide additional information on the layout of the former Maverick gas station and to discuss future groundwater sampling events. Quarterly groundwater sampling events were conducted between August 2007 and October 2008. Total lead has been detected above MTCA Method A cleanup levels in one well (MW-2) during the October 2008 sampling event. Total and dissolved lead in groundwater was tested in MW-2 in November 2008. The total lead exceeded the MTCA Method A cleanup level and the dissolved lead sample did not exceed. Three additional quarters of groundwater sampling from MW-2 were undertaken (June 2009, September 2009, and December 2009) for total lead in groundwater. None of the three additional quarters exceeded the MTCA Method A cleanup level for lead in groundwater. Based on these data and the dissolved lead results collected in November 2008 from MW-2, it does not appear that lead in groundwater is an issue at the Site.



PACIFIC AVENUE



LEGEND

- AEG BORING LOCATIONS (2007)
- ⊕ MONITORING WELLS (AEG 2007)
- ⊙ SOIL BORING LOCATION (CAMBRIA 2006)

DRAWING SCALE: 1" = 20'



ASSOCIATED ENVIRONMENTAL GROUP, LLC  
1728 State Avenue NE, Suite 101  
Olympia, WA 98506  
(360) 352-9835 Fax (360) 352-8164

FIGURE 1  
SITE PLAN

FORMER CHEVRON STATION  
3731 PACIFIC AVE SE  
OLYMPIA, WA

Project# 07-180  
File: DeTroy

Date: 12/15/2009  
Sheet 2 OF 2



Table 1 Summary of Groundwater Analytical Results  
Former Chevron Service Station  
Olympia, WA

Sample Number	Date Sampled	BTEX <sup>2</sup> (µg/L)				Gasoline <sup>2</sup> (µg/L)	Table 800-1 Constituents <sup>1</sup> (µg/L)				Total Lead <sup>4</sup> (µg/L)	Cadmium <sup>5</sup> (µg/L)	NWTPH-Dx/Ext <sup>6</sup> (µg/L)		
		Benzene	Toluene	Ethylbenzene	Xylenes		1,2-Dichloroethane (EDC)	1,2-Dichloroethane (EDB)	Total Naphthalenes	MTBE			Diesel	Heavy Oil	Mineral Oil
MW-1*	8/8/07	<1.0	<1.0	<1.0	<1.0	<100	<1.0	<0.01	<5.0	<5.0	<1.0	NT	NT	NT	NT
	12/7/07	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	4/1/08	<1.0	<1.0	<1.0	<1.0	<100	<1.0	<0.01	<5.0	<5.0	<2.5	NT	NT	NT	NT
	7/21/08	<1.0	<1.0	<1.0	<1.0	<100	<1.0	<0.01	<5.0	<5.0	<2.5	NT	NT	NT	NT
MW-2	10/20/08	<1.0	<1.0	<1.0	<1.0	<100	<1.0	<0.01	<5.0	<5.0	9	NT	NT	NT	NT
	8/8/07	<1.0	<1.0	<1.0	<1.0	<100	<1.0	<0.01	<5.0	<5.0	<1.0	NT	NT	NT	NT
	12/7/07	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	4/1/08	<1.0	<1.0	<1.0	<1.0	<100	<1.0	<0.01	<5.0	<5.0	<2.5	NT	NT	NT	NT
	7/21/08	<1.0	<1.0	<1.0	<1.0	<100	<1.0	<0.01	<5.0	<5.0	8.5	NT	NT	NT	NT
	10/20/08	<1.0	<1.0	<1.0	<1.0	<100	<1.0	<0.01	<5.0	<5.0	26.3	NT	NT	NT	NT
MW-3*	11/7/2008**	NT	NT	NT	NT	NT	NT	NT	NT	NT	9.3	NT	NT	NT	NT
	6/12/09	NT	NT	NT	NT	NT	NT	NT	NT	NT	6.5	NT	NT	NT	NT
	9/2/09	NT	NT	NT	NT	NT	NT	NT	NT	NT	<5.0	NT	NT	NT	NT
	12/7/09	NT	NT	NT	NT	NT	NT	NT	NT	NT	<5.0	NT	NT	NT	NT
MW-4*	8/8/07	<1.0	<1.0	<1.0	<1.0	<100	<1.0	<0.01	<5.0	<5.0	<1.0	NT	NT	NT	NT
	12/7/07	—	—	—	—	—	—	—	—	—	—	—	—	—	—
	4/1/08	<1.0	<1.0	<1.0	<1.0	<100	<1.0	<0.01	<5.0	<5.0	10.9	NT	NT	NT	NT
	7/21/08	<1.0	<1.0	<1.0	<1.0	<100	<1.0	<0.01	<5.0	<5.0	3.7	NT	NT	NT	NT
MW-5*	10/20/08	<1.0	<1.0	<1.0	<1.0	<100	<1.0	<0.01	<5.0	<5.0	7.3	NT	NT	NT	NT
	12/7/07	<1.0	<1.0	<1.0	<1.0	<100	<1.0	<0.01	<5.0	<5.0	<2.5	NT	NT	NT	NT
	4/1/08	<1.0	<1.0	<1.0	<1.0	<100	<1.0	<0.01	<5.0	<5.0	9.0	NT	NT	NT	NT
	7/21/08	<1.0	<1.0	<1.0	<1.0	<100	<1.0	<0.01	<5.0	<5.0	<2.5	NT	NT	NT	NT
MW-6*	10/20/08	<1.0	<1.0	<1.0	<1.0	<100	<1.0	<0.01	<5.0	<5.0	<2.5	NT	NT	NT	NT
	12/7/07	<1.0	<1.0	<1.0	<1.0	<100	<1.0	<0.01	<5.0	<5.0	<2.5	NT	NT	NT	NT
	4/1/08	<1.0	<1.0	<1.0	<1.0	<100	<1.0	<0.01	<5.0	<5.0	7.0	<0.5	NT	NT	NT
	7/21/08	<1.0	<1.0	<1.0	<1.0	<100	<1.0	<0.01	<5.0	<5.0	<2.5	<0.5	NT	NT	NT
SB3-W	10/20/08	<1.0	<1.0	<1.0	<1.0	<100	<1.0	<0.01	<5.0	<5.0	11.9	<0.5	NT	NT	NT
	10/30/07	<1.0	<1.0	<1.0	<1.0	<100	<1.0	<0.01	<5.0	<5.0	4.7	<0.5	<200	<400	<400
POL		1	1	1	1	100	1	0.01	1 or 5	1 or 5	1, 2.5, or 5.0	0.5	200	400	400
Ecology MTCA Method A Cleanup Levels		5	1,000	700	1,000	1000 <sup>6</sup>	5	0.01	100	20	15	5	500	500	500

Notes:

<sup>1</sup> Approximate monitoring well locations are shown in Figure 1

<sup>2</sup> Analyzed by EPA Method 821B or 8260B.

<sup>3</sup> Analyzed by Northwest Method NWTPH-Gx

<sup>4</sup> Analyzed by EPA Method 7000 Series

<sup>5</sup> Analyzed by Northwest Method NWTPH-Dx/Ext.

<sup>6</sup> Cleanup level without presence of benzene

µg/L = micrograms per liter

\*\*ceased ground water monitoring/sampling activities at this well

MTBE = methyl tertiary-butyl ether

"<" not detected above laboratory detection limits.

"NT" Indicates not tested for this constituent

"—" Indicates well was not sampled during this sampling event or insufficient water in well

Bold indicates the detected concentration exceeds MTCA Method A cleanup level.

\*\*Groundwater sample was re-analyzed on 11/7/08 due to high turbidity in previous sample

collected on 10/20/08.

